

& Balakr. in J. Econ. Tax. Bot. Ad. Ser. 9: 19. 1992. *A. bunius* sensu Hook. f., Fl. Brit. India 5: 358-9. 1887 (Pro parte); Pax & Hoffm. in Engl., Pflanser. 4, 147(15): 160 - 1. 1992. non (L.). Spreng. 1825.

Shrubs or small trees, c. 6 m tall, branchlets greyish, sparsely lenticellate. Leaves 8-19 x 3-8 cm, elliptic to elliptic oblong, or ovate-lanceolate, acuminate at apex, acute or rounded at base, coriaceous, glossy, lateral nerves c. 10 pairs, thin, flattened above, thinly raised beneath, midrib flattened above, raised, tapering beneath, venation finely reticulate, tessellated, petiole 1 cm long, pulvinate at apex, infructescence usually cauliflorous, very rarely axillary on old leaves, c. 7 cm long, fascicled. Fruits 7 x 5 mm, flattened, quadrate orbicular drupes with persistent stigma at apex, greenish turning reddish to finally blackish.

Fr.: April.

Ecology: Very rare in the inland evergreen forest at low altitude.

Distribution: Andamans (India); Sri Lanka, Indo-China, Myanmar (Burma), Thailand, Sumatra, Philippines and Borneo.

Specimen examined: Wrightmyo 16-4-1989, S.P. Mathew 20264 (CAL & PBL)

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36. A REPORT ON THE THREATENED ORCHIDS OF MANIPUR

As many as 34 species of orchids from North-East India are listed among the threatened plants of India, out of which only three species, namely *Dedrobium bensoniae* Reichb. f., *Renanthera imschootiana* Rolfe., and *Vanda coerulea* Griffith ex Lindl., are recorded from Manipur (Jain and Shastri 1983). However, I have observed three more species of threatened orchids growing in the hills and glades of Manipur.

Paphiopedilum spicerianum (Reichb. f.) Pfitz., an endemic and endangered plant recorded from Assam also grows in the Barak watershed of Manipur. This highly ornamental orchid is seen to grow in great abundance on the steep rocky cliffs of the Barak river in the Jiribam and Tamenglong Sub-divisions.

Pleione hookeriana (Lindl.) Williams, a rare orchid that is recorded to be endemic to Sikkim,

Arunachal Pradesh, Bhutan and Nepal also grows in Manipur at elevations 2700-3000 m above MSL.

Galeola falconeri Hook. f., an endemic and rare orchid of Sikkim and Arunachal Pradesh is also found in the parallel folds of the Shiroy-Kasom hill ranges of Manipur.

It is next to impossible to collect and grow *Galeola falconeri* - a saprophyte, in orchid gardens. However, the *Paphiopedilum spicerianum* and *Pleione hookeriana* are successfully grown in the state owned orchid gardens of Manipur, as a part of ex-situ conservation of the threatened orchids of the State.

A new genus of orchid "*Kalimpongia*" was discovered in Manipur at the elevation 1700-2000 m (Pradhan 1977) and three different species of orchids, namely *Kalimpongia narajitii*, *Scheonorchis manipurensis* and *Ascocentrum ampullaceum* var.

aurenticum have been found to be endemic to Manipur. As the above orchids grow in a very small geographic area, it is logical that they also may be listed among the threatened plants of India.

February 7, 1994

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37. *WOODSIA LANOSA* HOOK. (WOODSIACEAE) FROM GARHWAL HIMALAYA: REDISCOVERED

While investigating the pteridophytic flora of Roopkund area of Garhwal Himalaya, one of us (KB) collected a rare and threatened fern (*Woodsia lanosa* Hook.). A perusal of earlier literature shows this fern was not collected from Garhwal Himalaya after the original collection and subsequent workers included this on the authority of previous reports (Hope 1903, Duthie 1906, Dhir 1980, Singh *et al.* 1986, Khullar *et al.* 1987 and Pande 1990). It is now being reported from Garhwal Himalaya after its first report by Duthie in 1884.

Woodsia lanosa Hook., Syn. Fi 1., 47. 1866; Clarke, Trans. Linn. Soc. Lond., II, Bot. 1: 435. 1880; Beddome, Handb. Ferns Brit. India, 22. 1883; Duthie, Cat. Pl. Kumaun, 230. 1906; Dhir, Bibliotheca pteridologica, 1: 62. 1980; Singh, Chaudhery & Rao, Ind. J. For., 9: 163. 1986; Khullar, Sharma & Chaudhary, West Himal., 1: 374. 1987; Pande, Indian Fern J., 7: 174. 1990.

Gymnogramme andersoni Bedd., Ferns Brit. India 190, 1866; Hope, J. Bombay nat. Hist. Soc., 100. 1903 (pro parte).

Voucher specimens are housed in the herbarium, Department of Botany, Kumaun University Campus,

Almora. Chamoli Garhwal: Roopkund near Bedini Bugyal, 3300 m dated Sept., 1991, *Kusum Bhandari* 15.

Duthie (1884) cf. Hope (1903), Duthie (1906), Dhir (1980), Singh *et al.* (1986: Sheet in CAL 3706), Khullar *et al.* (1987: Sheet in DD) reported this rare fern from Fulmar pass in Tehri Garhwal and Kauri pass in Chamoli district. Not collected since then. Further, there is no collection of this species from Garhwal in BSD (cf. Singh *et al.* 1986).

Extremely rare fern that grows in rock crevices between altitude of 3000 and 3600 m. This taxon reported herein is not likely to survive unless proper steps are taken for its conservation.

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38. *ERAGROSTIS ASPERA* (JACQ.) NEES : AN ADDITION TO THE GRASSES OF ORISSA

(With a text-figure)

During the study of the grasses collected from three districts of Orissa, I came across a taxon, *Eragrostis aspera* (Jacq.) Nees, which has not been

earlier reported from the state (Mooney 1950, Jain *et al.* 1975). Earlier this grass has been reported from Madras and Southern Konkan, Marathwada, Rajasthan